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DANISH RESEARCH ACTIVITIES

RELATED TO THE HALOCARBON-OZONE PROBLEM - 1977

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Research field	Research projects (active)	Future projects (planned or proposed)	Institution	Researcher
Cancer	Cancer epidemiology. Watching the trend of the occurance of different types of skin cancer in the total Danish population	Research of the causes of skin cancer by analysis of data of incidences related to e.g. age, occupation, place of living, smoking habits etcetera	Danish Cancer Registry, Copenhagen	J. Clemmesen
Climate	Study of climatic changes by Greenland ice-core analyses	Continuing	Geophysical Isotope Laboratory, University of Copenhagen	W. Dansgaard
Global radiation	Stochastic modelling of global radiation		Laboratory of Technical Hygiene - Technical University of Denmark, Lundtofte	S. Hansen & N.B. Johansen
Halocarbons	Determination of lifetimes of simple halocarbons in the troposphere, based on theoretical estimates of rate constants	Extension to investigation of unsaturated and fully halogenated hydrocarbons	University of Arhus, Institute of Chemistry	A. Grove & A.B. Mikkelsen
Halocarbons	An investigation of the strato- and tropospheric concentrations of halogenated aliphatic hydrocarbons in Greenland in the summer period	Continuing	Research Establishment Risø, Aerosol Sciences Laboratory, Roskilde	H. Flyger H. Zeuthen Heidam & E. Lund Thomsen
Meteorology	Turbulent diffusion Entrainment across inversion barriers	Continuing	Research Establishment Risø Meteorology Section, Roskilde	H.E. Busch
Nitrous oxide	Nitrogen fixation in association with mosses in fens and springs	Continuing	Botanical Institute, University of Arhus, Risskov	Esbern Bærneke
Nitrous oxide	Rates of denitrification in lakes as function of nitrate concentration, oxygen and temperature	Continued investigation of streams	University of Copenhagen, Freshwater Biological Laboratory, Hillerød	J.H. Andersen

Nitrous oxide	Nitrate reduction in the soil. Generation of N_2O and N_2 in different types of soil as a function of soil depth, soil oxygen and temperature	Continuing	State laboratory for soil and crop research, Lyngby	A. Lind
Nitrous oxide	Methods for measurements of denitrification (application of ^{15}N)	Continuing	Water Quality Institute, ATV, Horsholm, Denmark. Danish Isotop Center, ATV, Copenhagen	K.I. Dahl-Madsen & J. Pfeiffer Madsen
Numerical modelling of atmospheric physics and chemistry	Development of accurate multidimensional numerical methods for simulation of atmospheric dispersion including chemical reactions	a) 1-D and 2-D dispersion and chemical modelling on global scale b) 1-D and 2-D climatic modelling coupled to a)	Danish Meteorological Institute, Air Pollution Section, Copenhagen	L.P. Prahm & B. Berkowitz
Ozone in the stratosphere	Rocket sounding of ozone in the stratosphere, from Greenland, 1976		NASA,U.S.A. (Ionosphere Laboratory, Danish Meteorological Institute)	J. Taagholt
Photochemistry		Primary photochemical and photophysical processes of halocarbons. Primary thermal processes of fluorohalocarbons under atmospheric conditions	Institute for Chemistry, University of Copenhagen. Institute for Chemistry, University of Odense	O. Buchardt C. Lohse
UV radiation	UV radiation measurements in the Copenhagen area (Danish Meteorological Institute)	Continuing	Pennsylvania Temple University, (Finsen Instituttet, Copenhagen)	H. Brodthagen
UV radiation	UV radiation measurements in Arhus (WMO project)	Continuing	Arhus University	Atmospheric Environment Service, Canada
UV radiation	Measurements of UV to infrared radiation and its effect on plant growth and development	Continuing	Royal Veterinary & Agricultural University, Copenhagen	A. Madsen

prepared by A.Astrup Jensen & L.P.Prahm